

**MICROSCOPE PROBLEMS**

Most measurements are given in **micrometres**, and not millimetres, since we are working with very small organisms (using micrometres minimizes the use of decimals). Therefore, we need to know how to change millimetres (mm) to micrometres ( $\mu\text{m}$ ).

Micro means one millionth  $\Rightarrow 1,000,000 \mu\text{m} = 1 \text{ m}$

For microscope purposes, the following relationship is more important:  **$1000 \mu\text{m} = 1 \text{ mm}$**

**Remember:**

$1 \text{ mm} = 0.001 \text{ m}$	$1000 \text{ mm} = 1 \text{ m}$
$1 \text{ cm} = 0.01 \text{ m}$	$1 \text{ m} = 100 \text{ cm}$
$1 \text{ mm} = 0.1 \text{ cm}$	$1 \text{ cm} = 10 \text{ mm}$

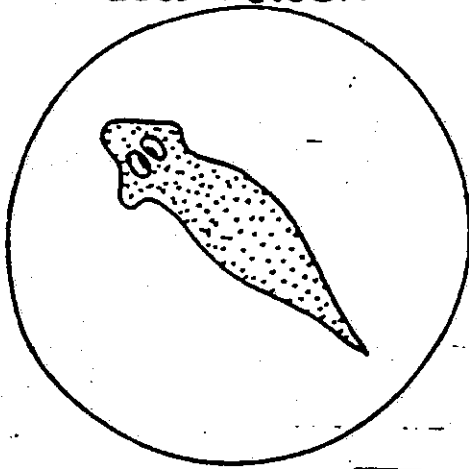
**Change the following units as indicated:**

- a.  $3000 \mu\text{m}$  \_\_\_\_\_ mm
- b.  $100 \mu\text{m}$  \_\_\_\_\_ mm
- c.  $250 \mu\text{m}$  \_\_\_\_\_ mm
- d.  $10 \mu\text{m}$  \_\_\_\_\_ mm
- e.  $2.5 \text{ mm}$  \_\_\_\_\_  $\mu\text{m}$
- f.  $25 \text{ mm}$  \_\_\_\_\_  $\mu\text{m}$
- g.  $0.75 \text{ mm}$  \_\_\_\_\_  $\mu\text{m}$
- h.  $0.03 \text{ mm}$  \_\_\_\_\_  $\mu\text{m}$
- i.  $1.0 \text{ cm}$  \_\_\_\_\_ mm = \_\_\_\_\_  $\mu\text{m}$
- j.  $2.65 \text{ cm}$  \_\_\_\_\_ mm = \_\_\_\_\_  $\mu\text{m}$

< Low = 4000  $\mu\text{m}$   
 = Medium = 1600  $\mu\text{m}$   
 < High = 400  $\mu\text{m}$

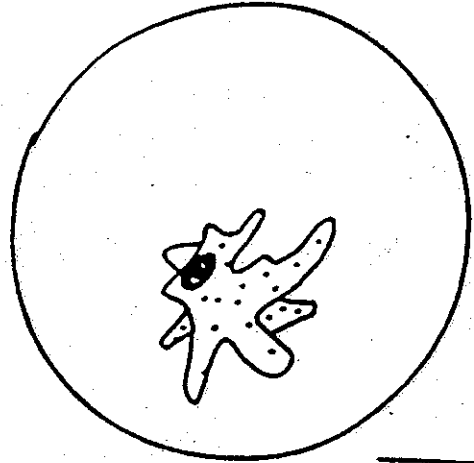
Calculate the size of the following organisms in  $\mu\text{m}$ .

Low POWER



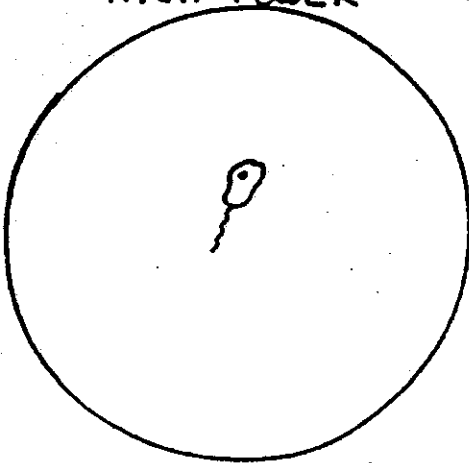
\_\_\_\_\_  $\mu\text{m}$

MEDIUM POWER



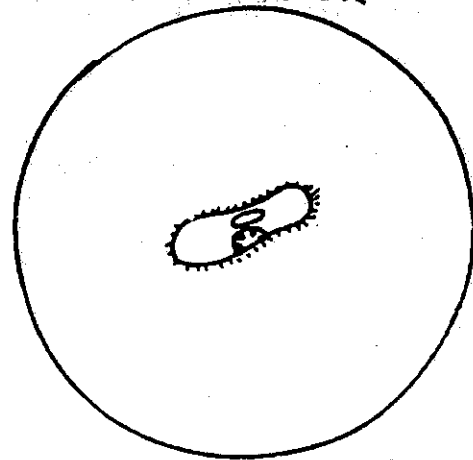
\_\_\_\_\_  $\mu\text{m}$

HIGH POWER



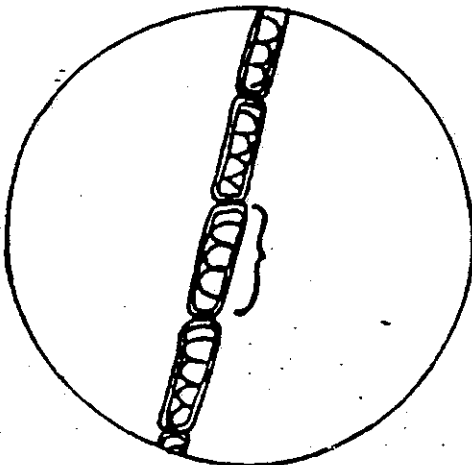
\_\_\_\_\_  $\mu\text{m}$

HIGH POWER



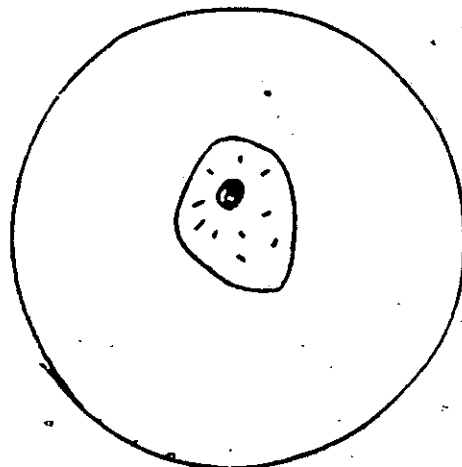
\_\_\_\_\_  $\mu\text{m}$

MEDIUM POWER



\_\_\_\_\_  $\mu\text{m}$

Low POWER



\_\_\_\_\_  $\mu\text{m}$